

# Are all Weber A ankle fractures benign?



Gadd RJ, Chadwick C, Blundell CM, Davies MB  
Sheffield Foot and Ankle Unit



## Worried?



Radiograph at presentation following a simple inversion injury.

## Worried now?



5 months following presentation. Radiograph shows a clear non union which is symptomatic.

## Introduction

Reports of non-unions in Weber A fractures are extremely rare. We present a case series of **large, transverse avulsion type fractures** (Weber A, Lauge-Hansen SAD stage 1 injury) which progressed to non-union and required surgical intervention.

## Methods

Following initial identification of the injury pattern we searched through theatre and PACS databases to identify all similar fracture non-unions that required surgical intervention. From November 2007 onwards, we also reviewed PACS imaging of all radiographs reported as Weber A fractures or non-unions to try and estimate an incidence.

## Results



Of the 116 radiographs reviewed, 19 showed similar fracture patterns and 4 progressed to a symptomatic non-union. All had appropriate initial management in a walker boot or cast.

All were young healthy patients with no significant co-morbidities.

## Results



All 4 progressed to union clinically and radiologically following ORIF with a variety of surgical techniques used. 3 of the 4 cases used bone graft.

## Discussion

Why does this occur?  
Fibrous healing due to high strain environment?  
Synovial fluid/ periosteum in fracture site?  
Watershed area for blood supply?  
Further research would be required to identify a cause.

## Conclusion

This is a rare injury, but be vigilant of these **large, transverse avulsion type fractures** as they can progress to a symptomatic non-union.

**We don't recommend any alteration to your initial management as these are stable injuries but as with a 5th metatarsal Jones fracture it may be wise to inform your patients about the risk of developing a non union.**